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ABSTRACT

The purpose of this publication is to aid elementary teachers in defining and illustrating career education concepts within the framework of the science and social studies curriculums thay are teaching. Behavioral objectives were written to connect the subject areas with career education themes. The Center for Vocational and Technical Education at The Ohio State University developed 8 career education elements, composed of 32 themes, which were used to write the six science and six social studies units presented in this document. The career elements are related (in a 3-column format of themes, objectives, and unit content) to the subject content responsibilities of elementary teachers as outlined by the New York State Education Department syllabuses for social studies and science. The models are tentative and are not intended as teaching units but rather to assist in providing direction to teacher task forces in curriculum development. (MF)

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Infusion Models

Career Education in the Elementary School

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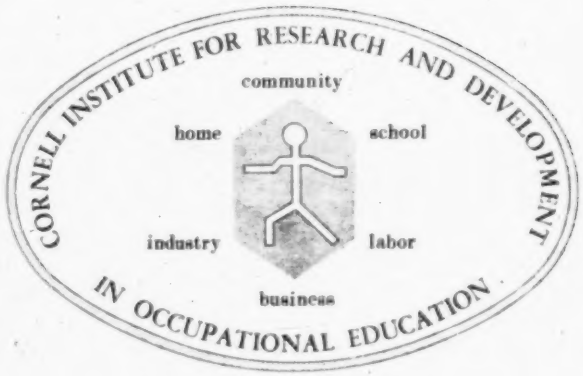
Infusion Models

Career Education in the Elementary School



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Introduction

The purpose of this publication is to aid elementary teachers in defining and illustrating Career Education concepts within the framework of the Science and Social Studies curriculum they are currently teaching.

A review of the available literature dealing with Career Education in the elementary school revealed very few attempts at fusing Career Education objectives with subject-matter curricula. Most such attempts have been isolated activities which were not systematically integrated with a curriculum area.

We set out to experiment with the possibility of taking a curriculum, examining its concepts, and writing objectives which connect the subject-matter content with Career Education themes.

The most viable areas in which to do this seemed to be Social Studies and Science. Our Science and Social Studies objectives were taken from the New York State syllabi. We then looked for appropriate parts of the content which could be infused with Career Education concepts.

The eight Career Education Elements (from the Ohio Center for Vocational and Technical Education) are composed of 32 themes. These themes were carefully reviewed in our attempt to write behavioral objectives which would fuse career and content concepts.

We hope our model encourages you to see the many connections and applications of the Career Education themes. We have included the career education elements first, then the themes that were appropriate, the connecting behavioral objectives and finally the specific curricula areas that were chosen for each grade level. There are six science and six social studies units presented.

Some of our objectives seem to relate to more than one career theme. And sometimes even the elements seem to overlap. Some themes seem more appropriate to a separate unit on affective education or are a part of classroom organization which may or may not be directly related to the subject-matter unit.

Acknowledging these limitations, we pursued our original goal and have here an illustration of a possible overlay of career education concepts on elementary school curricula.

The experienced teacher will undoubtedly find these objectives to be similar to many which she already has for her class.

That is precisely the point of our exercise--awareness of the world of work is part of our present curricula. What we hope to further is a new emphasis and a new consciousness on the part of the teacher for a revival of positive attitudes toward work.

Preface

Elementary school teachers do not have time during the school day to add more learning activities or subject matter units to their programs. Legal and administrative mandates are already overwhelming.

If we are to help youth along a continuum of improved career decision making, we must seek means through which we can provide a career focus for mandated learning activities, identify knowledge that should be infused throughout the curriculum, and deal with necessary appreciations and attitudes within the context of a normal school day.

The models presented in this publication are based on four assumptions:

1. Career education addresses itself to one of youth's vital developmental tasks--thus should observe identifiable principles of child development, learning readiness and the psychology of learning.

2. The Comprehensive Career Education Matrix, developed at the Ohio State University Center for Vocational and Technical Education, and the proposed CCEM Themes. (Note: We are not entirely satisfied with CCEM, but accept it here as a starting point in this developmental process.)

3. That Career Education represents a focus and that its implementation depends on the infusion process.

4. That the process of curriculum development through involvement of individual teachers, task forces and teacher teams is fundamental to implementation of the changes inherent in an acceptance of the career education concept.

We have chosen the curriculum areas of social studies and science for our infusion efforts. The models presented here illustrate a direction that teachers might experiment with in further curriculum development.

If you find these models useful, we leave it to you to extend the effort to other concepts in these two areas and to identify concepts in the areas of communication skills, mathematics, art, music, etc. that will lend themselves to infusion with cognitive and affective content that addresses the Career Education elements and element outcomes.

Dr. John Wilcox, Director

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TABLE OF CONTENTS

	Page
Development of the Models	iv
Definition of Terms	v
SOCIAL STUDIES, Social Organization, Grade 1	1
SOCIAL STUDIES, Economic Organization, Grade 2	3
SOCIAL STUDIES, Social Organization, Grade 3	6
Geography, Grade 3	7
SOCIAL STUDIES, People and Leaders, Grade 4	9
SOCIAL STUDIES, Economic Organization, Grade 5	15
SOCIAL STUDIES, Economic Organization, Grade 6	24
SCIENCE, Our Growing Bodies, Grade 1	28
SCIENCE, Air, Water and Weather, Grade 2	30
SCIENCE, Living Things, Grade 3	32
SCIENCE, Matter and Energy, Grade 4	35
SCIENCE, The Earth and Its Composition, Grade 5	38
SCIENCE, Solar System and Beyond, Grade 6	42
APPENDIX A, CCE Matrix	46
APPENDIX B, Revised List of Matrix Themes	47

Development of the Models

In the remainder of this manuscript we have attempted to relate the eight Career Education Elements to the subject matter content responsibilities of elementary teachers as outlined by the New York State Education Department syllabi for Social Studies and Science. These efforts are designed only as tentative models to assist in giving some rational direction to teacher task forces that are at work all through this State. The models are not intended as teaching units--consequently, are incomplete.

Element Themes

The first step in this process was to enlarge upon the elements through translation into themes. Again, we are indebted to personnel at the Ohio CVTE for access to their materials (Appendix).

A theme describes the relatedness of specific goal statements over the entire span of K-12 or several grade levels. It is not necessary to deal with every element, or every theme in every subject at every level. Several themes may be associated with each Career Element and serve to identify the breadth and scope of content related to the Career Element.

Decisions as to the use of these themes at any given level should be based on our knowledge of a child's readiness for learning experiences and our understandings of the psychology of learning.

Performance Objectives

The second step in the process was translation of themes to performance objectives appropriate to the level under consideration. A performance objective clearly indicates what the student who has achieved the objective will be able to do. In addition, the performance objective specifies in measurable terms the conditions under which the student is expected to perform and extent or degree of excellence associated with mastery or achievement.

Units of Instruction

Finally, we undertook identification of a specific unit of instruction which would lend itself to modification by infusion of knowledge and/or activity that would lead to achievement of the performance objectives.

You are on your own!

We hope this approach will be useful to you.

Definition of Terms

Career Education is a concept. An educational concept is a generalized idea of a class of cognitive, affective and psychomotor learnings that address themselves toward the achievement of an intention or goal.

Career Education intends to assist the individual through knowledge and skills necessary to cope with lifelong developmental tasks. The mastery of these developmental tasks is basic to self-actualization and self-fulfillment.

Career education thus remains an abstraction. We may think of it as a focused concern for helping the individual along a developmental continuum of decision making that will enhance his opportunities for becoming a self-fulfilled and contributing member of his society.

The content of experience in Career Education will consequently differ with the needs and interests of the individual. The content of the contribution to Career Education by individual educators will differ according to the interests and specialization of the educator. Such contributions by individual educators are, and will continue to be, determined by both individual personality and professional preparation for his role in the educational institution.

The total content of career education for any individual consists of all his formal and informal learning experiences in the many settings provided by his home, the individual institutions of his community, the gestalt of his community environment, and his more cosmopolitan experiences. One can intellectualize this only through application of another theory or concept such as Roger's field theory of psychology.

It remains for us, then, to identify those learning experiences best provided by our institution, the school. Further, to communicate with others to enhance both institutional and individual efforts toward a community contribution to youths' need for assistance in coping with the developmental task of establishing career identity.

Career Education Elements

For purposes of establishing our institutional responsibilities and identifying learning experiences that will contribute to fulfillment of those responsibilities, it is necessary that we try to sort out those elements of the Career Education concept that are of priority concern to the formalized programs of our school. A first step in doing this has been taken by the personnel of the Career Education project at the Center for Vocational and Technical Education, The Ohio State University.

We have applied these elements in the preparation of the Infusion Models presented in this publication. During this process of application we discovered that the elements are not discrete; that some seem superordinate and some subordinate, and the whole of the Career Education concept is much greater than the sum of these elements. However, in the course of developing Career Education, events will not allow us the academic luxury of waiting for perfection before we act. Your experiences, as you attempt to implement the Career Education concept, will surely generate alternative approaches. Your intellectual contributions will surely enhance our understandings and epistemological studies.

The eight elements represent the areas of educational development, starting at the awareness level that can, in terms of career, be specified in educational goals and cognitive, affective and psychomotor behavioral objectives and be organized instructionally to assist students in moving from awareness toward high levels of development associated with identity.

Career Awareness

"The individuals entering school possess some knowledge about, attitudes toward, and interests in some careers. He knows something about career performances, associated life-styles, rewards, working conditions, and the education and training requirements possessed by some persons in some careers. That knowledge of careers can be referred to as career awareness. Through career education, home, and community life the student should be assisted in understanding the broad range of careers which are available as they serve him, the community, or society-at-large. He should also be assisted in learning what is involved in the development, growth, behavior, training, and rewards of persons engaged in specific occupations. From this broad understanding of careers, career awareness, the student should experience active career exploration and preparation which leads to career identity. Career identity is defined as the individual's selection of an appropriate role or roles within the world of work."

Self Awareness

"The entering student also has some knowledge and attitudes toward himself, what kind of person he is, and what he hopes to become. This can be titled as self-awareness. Through career education and his home and community experiences, the student will become involved in a planned, sequential, process of self-assessment and self-evaluation which results in self-identity. As he realizes who he is and what he is like, he will develop a reasonably consistent internalized value system."

Appreciations and Attitudes

"The element Appreciations-Attitudes was included as a means of focusing attention on the affective component of career education. Through career education and its supporting systems, the individual should develop an internalized value system which includes a valuing of his own career role and the roles assumed by others. These appreciations and positive attitudes toward his own career role and the roles of others in the society should lead to active and satisfying participation as a productive citizen and thus, provide for both self-fulfillment and social fulfillment. Self↔social fulfillment is defined as the internalization of a value system which motivates the student toward becoming a self-actualized, self-fulfilling member of the world of work with appreciations for his own role and the roles of others."

Decision-Making Skills

"The entering student has some understanding of the decision-making process and possesses some decision-making skills. If he is able to understand cause and effect relationships, he is ready to examine the decision-making process. Through career education and supporting school and life experiences, he will develop increasing skill and experience in the rational processes of decision-making, practice making decisions, and come to accept the responsibility for the outcomes of his decisions. The career decisions made during his involvement in the Comprehensive Career Education Program will progress from very tentative and flexible career decisions to decisions which are increasingly irreversible or reversible only at some cost of time, effort or money. He should reach a decision which represents a careers direction-setting by grade ten, or early enough to provide for the development of entry level skill in a career plan prior to school exit. Career decisions are defined as a careers direction-setting, the product of a rational process, a plan for immediate, intermediate, and long term career development."

Economic Awareness

"The child has observed and participated in the economic system to some extent prior to school entry. Building on this base of economic awareness, we wish to facilitate the students' thorough exploration of the economic system both as it relates to career development and the community and society-at-large. Economic understandings are defined as those conceptual elements and networks which make it possible for the child or adult to 'read' the economic environment and solve personal and social economic problems."

Skill Awareness

"The entering student is aware that some skills are required for engaging in occupations, and he may have some beginning skill competence. He is able to participate in some tool and process applications. Tool skills are defined very broadly to include all of the ways in which man extends his behaviors. He extends his ideas by means such as language skills, drawings, drafts, performance. He extends his senses by the use of microscopes and telescopes, his physical capability and capacity by the harnessing of energy and the using of tools. Man engages in process applications by creating or imitating individual or group sequences for completing tasks. The career education program and its support systems will provide opportunities for the student to participate in tool and process applications in order to provide for employment skills. Additionally, this development will feed into other elements of career education, such as career identity, self-identity, economic understanding."

Employability Skills

"Employability skills are those elements of career education which have to do with searching for, locating, and obtaining career placement both on an initial and an advanced basis. Employability skills also deal with developing group participating and other social relation awarenesses and skills."

Educational Awareness

"The entering student has some awareness of the relationship between education and training, whether formal or experience-based, and the life roles assumed by himself and others. From this basic educational awareness, the student will continue to develop and refine a thorough understanding of the part education and training plays in relation to the 'real' and 'now' world and the changing world in which he will assume a more complete productive participation. He will also come to recognize the need for specific education and training for specific career roles. Educational identity combines an understanding of the relationship between education and training and life roles, the knowledge of himself as a participant in education and training, his learning style, pace, capabilities and capacities, and the ability to select and evaluate educational avenues for the development of his career plans.

"If it is agreed that career education is a developmental process which goes hand-in-hand with the growth and development of the individual and that these eight elements adequately define the structure of career education, then comprehensive career education can be designed so that each of these elements will be further developed as the child progresses through each maturation level. Maturation and a broadened experience base provide a foundation for developing new insights, understandings and higher level skills as the child progresses through the program."

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	2. The student will learn about himself in relation to his culture through understanding and experiencing roles.	Given family life occupations of today and long ago the child will be able to compare his family's work with the work of a farm family of long ago by matching pictures of workers with the appropriate family.	SOCIAL ORGANIZATION 1. *Many years ago, family life was different in our State.*
SELF AWARENESS	3. The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.	Given opportunities at school the child will be able to select an activity (filmstrip, game, picture story) relating to farm life long ago and report orally to the class what he did.	. *Most families lived on farms.* . *Families were usually larger than today.* . *Very often, grandparents as well as aunts and uncles and cousins all lived on one farm.* . *Everybody worked hard, from sun-up to sun-down, to produce the necessities of life.* . *Children had many jobs or chores to do on farms.* . *Children attended small, one-room schools from late fall to early spring.*
	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will be able to draw picture stories showing the steps of the process of getting the product from the farm to the store to the home by drawing picture stories of the animals, the farmer selling the animal to the stores, and buying it from the stores.	
	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will be able to identify several family activities of long ago which he would find interesting to learn about, through a class discussion period.	2. *People who live on farms today have much the same life as people who live in villages, cities, and suburban areas.*
EDUCATIONAL AWARENESS	9. The student will recognize that different career directions require varying types of educational preparation.	The child will name several ways that learning occurred outside of school long ago after viewing a film on colonial life.	. *Far fewer families live on farms today.*

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	11. The student will understand the variety of occupations found in the world of work.	Given a list of duties on the farm of long ago the child will be able to name four duties of a child on the farm of long ago.	. *Farm families are usually smaller than they used to be and are likely to consist of father, mother, and children (the nuclear family).*
CAREER AWARENESS	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will be able to match pictures of farm animals and their products.	. *Farm work today is easier because machines such as tractors are widely used.*
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The child will identify 4 specific tasks that the mother taught the daughter to do in the home of long ago by role playing a family life situation (2).	. *Farm children still help with chores.*
			. *Farm children today usually attend large central schools some distance from their homes.*
ECONOMIC AWARENESS	16. The student will understand the relationship between personal economics, life-style and occupational roles.	The child will be able to name through class discussion five tasks of the child of long ago that are not appropriate for the child of today.	3. *Most people today live in village, city, or suburban neighborhoods.*
			. *They live in family groups which usually consist of a father, a mother, and children (the nuclear family).*
DECISION MAKING	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child will complete an assignment on farm life long ago in the time specified by the teacher during the school day.	. *They live in one or two-family houses or in apartment buildings.*
	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	After a discussion of the different duties of farm workers, the class will make a list which will distinguish the job responsibilities of each farm worker of long ago.	. *Most neighborhoods have churches, libraries, social centers, and the like which help people to know one another and to live in large groups.*

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	2. The student will learn about himself in relation to his culture through understanding and experiencing roles.	The child will play the role of a grocer for a day, after setting up a mock store in the classroom.	*ECONOMIC ORGANIZATION* *1. Most communities have several different types of industries.* *. There are service industries, such as retail stores, restaurants, laundries, recreational facilities, and the like, which supply goods and services directly to consumers.* *. There may be manufacturing industries which produce products such as clothing, packaged goods, shoes, housewares, and the like which are sold to retail stores.* *. There may be basic industries which produce machines, metals, tools, and the like which are used by manufacturers.* *. Industries are interdependent. They depend upon one another for supplies and materials.* *. There is division of labor within most industries. One man does one job, another man does another job, and so on.*
SELF AWARENESS	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will draw pictures of 8 jobs in his community that supply him with needed goods and services.	
EDUCATIONAL AWARENESS	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will name 3 things he has learned on a field trip to a local industry.	
	9. The student will recognize that different career directions require varying types of educational preparation.	The child will be able to name the type of training required for each job at a local industry.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	11. The student will understand the variety of occupations found in the world of work.	The child will be able to list 5 occupations found in one industry in his community.	2. *All industries and businesses in our community operate under an incentive to make a profit.* *. The cost of any article or service is based upon the price paid for materials and labor. Any amount above costs represents profit.* *. Businesses and industries keep costs as low as they can so that they may charge customers a low price and still make a profit.* *. Businesses and industries must make a profit or they will be forced to shut down.*
CAREER AWARENESS	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will be able to state how 6 occupations in his community supply him with needed goods.	
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The child will make a booklet illustrating the training a doctor needs to perform his services.	
ECONOMIC AWARENESS	16. The student will understand the relationship between personal economics, life-style and occupational roles.	The child will make a list of 5 occupations in his community that an adult member of his household would be qualified to do.	3. *Community industries depend upon modern transportation and communication facilities.* *. Businesses and industries obtain raw materials, finished products, and other supplies and equipment from many places, some far away. They come by truck, railroad, and airplane.* *. Many requests or orders for supplies and equipment as well as sales*
DECISION MAKING	20. The student will identify and state personal goals as part of making career decisions.	The child will identify four work places in his community that will be worthwhile to visit on a field trip.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
BEGINNING COMPETENCY	24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.	The child will be able to draw 3 workers and the tools used in each one's job.	*orders, are transmitted by telephone and telegraph.* *. A very important communication service is provided by our national government-the United States Postal Service.* *4. The people who live in our communities depend upon local business and industry for employment.* *. When local business and industry are prosperous, many people have steady jobs and the community is prosperous.* *. The prosperity of a community depends upon a high level of consumer demand. Consumer demand is high when many or most people have enough money to buy the goods and services they need or want.* *. Communities are interdependent. All communities depend upon one another for the interchange of goods and services.*
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will interview (using a tape recorder) a worker in his neighborhood and bring information back to class.	
ATTITUDES AND APPRECIATIONS	31. The student will recognize the responsibilities to himself and others when accepting a task or job..	The child will participate in a skit about an interaction between a shopper buying boots and another shopper buying shoes.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	1. The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.	The child will be able to list 4 ways that a child contributes to a desert community, after seeing a film on family life in the desert.	*SOCIAL ORGANIZATION* *1. Desert dwellers live in family groups in various types of communities.*
SELF AWARENESS	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will state orally how he is a part of the family, school, community, society, and world, naming at least one role he has in each environment.	*. Many desert people are nomadic. They move from place to place taking all their few possessions with them. (Bedouins of Sahara and some of the Indians of Southwestern United States, for example.)* *. Some desert people live in communities which may be quite small such as a Saharan oasis, or quite large, such as the city of Yuma.*
	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will list the skills a desert child would learn outside of schoool from his parents.	*. Family groups on some desert areas, such as among the Bedouins and Tauregs of the Sahara-Arabian deserts, tend to be of the extended variety. That is, grandfathers, sons, uncles, cousins, fathers, all live together or near each other in large related groups that may number 50-100 people or more, including the children.*
EDUCATIONAL AWARENESS	9. The student will recognize that different career directions require varying types of educational preparation.	The child will identify which desert survival skills are necessary for each of 4 different desert roles.	
	10. The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.	The child will name the language skills needed to learn about a desert community.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	11. The student will understand the variety of occupations found in the world of work.	The child will list 5 occupations found in a desert community.	. *Nomadic American Indians of the southwest also tend to live in extended family groupings.*
CAREER AWARENESS	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will be able to describe in written form the services which 6 workers perform in a desert community.	. *In the oases and towns and cities, there are fewer extended families. In countries outside the U.S., however, there is a greater degree of closeness among members of large family groups than would be found in American desert communities such as those in the Imperial Valley of California.*
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The child will be able to state the major knowledge that a nomad tribal leader must know in order to travel across the desert.	
	15. The student will understand the relationship between career and life-style.	The child will be able to match a set of pictures of workers and the climates in which they work and orally give a reason for each choice.	
			GEOGRAPHY
			1. There are several large desert areas in the world. Some of the major ones are:
			. *The Western Desert of the United States.*
			. *The Sahara and Arabian Deserts in North Africa and the Middle East.*
			. *The Kalahari Desert in southern Africa*
			. *The Gobi Desert in Asia*
			. *The Great Australian Desert*
ECONOMIC AWARENESS	16. The student will understand the relationship between personal economics, life-style and occupational roles.	The child will list the various ways in which workers in a desert community solve the problem of obtaining food.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
DECISION MAKING	22. The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement the course of action.	The child will choose a desert occupation to read about and give an oral report to the class about the occupation he chose.	2. *Climatic conditions create deserts.* . *Most of the major desert areas of the world are in the middle latitudes.* . *Desert areas have less than 10 inches of rainfall a year.* . *The skies are usually clear in desert areas, since there are few rain clouds. The sun shines most of the time during daylight hours.* . *It is very hot during summer daylight hours in desert areas. At night it becomes very cool.*
BEGINNING COMPETENCY	25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.	The child will list the desert occupations that require interaction of community members in order to have a functioning nomadic community.	
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will be able to name his specific duties in a group project on a desert community.	
ATTITUDES AND APPRECIATIONS	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	The child will be able to list 6 different jobs unique to the desert community and name how each contributes to the life-style of the community.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
			PEOPLE AND LEADERS
	2. The student will learn about himself in relation to his culture through understanding and experiencing roles.	The child will be able to identify four colonial jobs of the mother and describe how they were important to the community.	*1. For almost 400 years, men and women from many parts of the world have come to America to make their homes.*
SELF AWARENESS			*. Their special abilities and their cultural strengths have been blended into one people in this country.*
			. Our American nationality is still in a process of evolution.
	3. The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.	The child will be able to name 3 jobs a colonial child had that today's child is not qualified to do.	*. Prior to the Revolutionary War, most of our immigrants were from Western Europe.*
			. During this period, many African Negroes were brought here to work as slaves, and there were also several hundred free Negroes in the colonies at this time.
	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will be able to list 5 things about colonial occupations that he learned from a trip to a museum.	*. Following the Revolutionary War and up to the present day, economic, political, social and religious unrest in Europe, plus the need for workers during our continuing Industrial Revolution, resulted in wave after wave of immigration.*

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will be able to name four kinds of entertainment available to him that were not available to the colonial child.	. During the late 1800's and early 1900's, America became known as "the melting pot" as large groups of immigrants from Ireland, Eastern, Southern, and Central Europe, Scandanavia, and Asia came to the United States in search of a better life for themselves and their children.
EDUCATIONAL AWARENESS	9. The student will recognize that different career directions require varying types of educational preparation.	The child will be able to make a chart comparing the educational preparation needed for a colonial glassblower and glassblower of today.	2. Discoverers and explorers from European countries added to man's knowledge of the New World, and settlement soon followed exploration. . Some explorers were seeking an all water trade route to the Far East, others were searching for gold. . All of these men had to face the dangers of ocean travel, but new inventions such as the compass and sextant made their voyages safer. . The eastern coast of North America was explored and then settled by the English, the French, the Dutch, and the Spanish.

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
CAREER AWARENESS	11. The student will understand the variety of occupations found in the world of work.	The child will be able to match pictures of colonial workers producing goods with pictures of 10 modern workers producing similar goods.	. Among the more famous explorers were Columbus, Henry Hudson, Robert LaSalle, John Cabot, Hernando De Soto, Vasco Balboa, Jacques Cartier, Estevancio, and others. . Among the leaders of the early settlements were Captain John Smith, William Bradford, Roger Williams, John Winthrop, and others.
	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will be able to make a chart of the ways in which colonial people obtained food and how we obtain food today, including at least 5 jobs in each era.	3. Much of our heritage and many of our traditions date back to our Colonial-Revolutionary period.
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The child will be able to write a story describing the processes by which workers became craftsmen in colonial days.	. Part of our Old World heritage from this period would include the ideals of freedom of religion, freedom of the press, and free education for all. . Some of our most influential colonial leaders were William Penn, James Oglethorpe, Benjamin Franklin, Sam Adams, Patrick Henry, Peter Zenger, and others.
	15. The student will understand the relationship between career and life-style.	The child will make a booklet, showing The agrarian life-style of colonial days.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	16. The student will understand the relationship between personal economics, life-style and occupational roles.	The child will compare the life style of a teacher in colonial times with a modern day teacher.	. Some of the important leaders during the Revoltionary War were George Washington, Phillip Schuyler, George Rogers Clark, John Paul Jones, Robert Morris, and others. . There were other men who contributed much to the development of our heritage and traditions.
ECONOMIC AWARENESS			4. Leaders with courage and wisdom were needed to help establish a new nation after the Revolutionary War.
	17. The student will understand the range of social and economic benefits benefits associated with various occupations.	The child will make a bulletin board contrasting today's farm with the colonial farm, illustrating at least 5 differences that are a result of technology.	. Following the war there was much confusion as many of the States started arguing among themselves over taxes, the acceptance of paper money from another State, and trade agreements. . There was little national pride. People preferred to be called New Yorkers, Pennsylvanians, etc. rather than Americans. . Some of the leaders in the establishment of our Nation were George Washington, Alexander Hamil-

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
			ton, Thomas Jefferson, and James Madison. . These and other men got together in Philadelphia and drafted a new Constitution which sought to make the United States truly one Nation.
DECISION MAKING	21. The student will become proficient in identifying, and using resource information in making career decisions.	The child will list 4 resources he has used in obtaining information about colonial housebuilding.	5. As the frontier moved west from the Appalachian Mountains, many brave men and women paved the way for the more permanent settlers who followed.
	24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.	The child will make a display showing at least 10 farm tools used today and at least 10 used in colonial times.	. The earliest pioneers followed the rivers--the Hudson, Susquehanna, Delaware, and their tributaries. . The Hudson River, Erie Canal route was one of the major factors in opening up the area west of the Appalachians. . At the end of the American Revolution, the Mississippi River, rather than the Pacific Ocean, was considered to be our natural western boundary. . Fur traders and hunters usually preceded the farmers and other settlers. Some of these men were free Negroes and escaped slaves.
BEGINNING COMPETENCY			
	25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.	The child will write a skit depicting the interdependence of family workers in the colonial period.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will prepare an assignment telling about the life of an American colonial leader.	. Courage, self-reliance, and resourcefulness were typical qualities of most of the frontiersmen and women. . It was largely the search for furs that motivated the exploration of the land west of the Mississippi River. . Settlement of the Far West was spurred by the discovery of gold in California. . The frontier has been called America's first melting pot because differences in nationality, religious belief, and social position were of little importance. . Among the leading frontiersmen who opened the vast territory between the Appalachian Mountains and the Pacific Ocean are Daniel Boone, Stephen Austin, Zebulon Pike, Merriwether Lewis, William Clark, Bill Cody, Kit Carson, Jim Bridger, Marcus Whitman, Davy Crockett, Nathanial Love (Deadwood Dick), and Jim Beckwourth.
ATTITUDES AND APPRECIATIONS	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child will share with the class information gathered from his research on 2 explorers.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	2. The student will learn about himself in relation to his culture through understanding and experiencing roles.	The child will be able to make a chart of the distribution of a product or service he uses from its initiation to its consumption.	ECONOMIC ORGANIZATION 1. The people of the United States, in common with all the people of the world, must attempt to solve the basic economic problem--that of scarcity. . Human wants are unlimited, while the supply of available resources needed to fill these wants is limited. This creates the problem of scarcity. . Thus the United States must make certain economic decisions: -What and how much to produce -How to combine and use resources in production -How goods and services will be distributed . The nature of these decisions determines the kind of an economic system a country or people will develop. 2. The United States has developed an economic system called "capitalistic." It is also described as a modified private enterprise market
SELF AWARENESS	3. The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.	The child will be able to list 2 talents which he has and identify 2 occupations in which they would be strengths.	
	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will be able to describe an occupation of one of his parents and state 3 ways in which it affects him (the child) as a member of the family.	
	5. The student will recognize that self-knowledge is related to a set or system of values unique to him.	The child will be able to name 3 jobs that are necessary to our economy that he would like to do and 3 jobs that he would not like to do.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will visit a nearby industry and interview the manager according to an interview schedule set up previously in class.	*economy because it operates within a framework of government controls.* *. Under this system, the economic decisions mentioned above are made, for the most part, by private individuals and groups.*
	8. The student will recognize that educational experiences are a part of his career development.	The child will list 4 topics he has learned at school that might be useful in a future career.	*. These individuals and groups decide how to combine and use resources in production. The basic resources of production are raw materials (natural resources such as metals, wood, oil, etc.), human resources (labor), and capital goods (factories and equipment).*
EDUCATIONAL AWARENESS	9. The student will recognize that different career directions require varying types of educational preparation.	Given different large corporation activities the child will be able to list the different talents being used in each one's work.	*. They decide what and how much to produce. Such decisions are usually based on the consideration of how much can be sold at a profit (the market aspect of the economy).*
	10. The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.	The child will list the specific curriculum topics that are taught by fifth grade which will help an adult in an industrial occupation.	*They decide how the goods produced will be distributed. Basically, goods will be distributed to those who have the money and are willing to pay for them. This is*

GEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	11. The student will understand the variety of occupations found in the world of work.	The child will be able to list 5 different job clusters and 10 occupations under each cluster.	*how a market economy works.* *. Most of these major economic decisions are made by organizations called corporations. Many corporations are small, having only a few owners. Others are very large, and they are "owned" by many thousands of people who hold their shares of stock. As part owners, they have a say in the operation of the enterprise and share in its profits.* *Though most of the major economic decisions are made by the large corporations, there are many thousands of small, individually owned businesses that play an important role in our economy. An example would be the corner grocery store.*
CAREER AWARENESS	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will be able to list 10 government jobs and state how each job influences his community.	
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The child will be able to list 3 competencies needed to perform each of 5 service occupations.	
	15. The student will understand the relationship between career and life-style.	The child will be able to write a story about life style of the farmer long ago and how it has changed today.	*3. Though most important economic decisions are made by individuals and groups under the private enterprise system, governments (national, state, and local) play a very important role in our economy. For this reason, some people describe ours as a "mixed economy."*

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	16. The student will understand the relationship between personal economics, life-style and occupational roles.	The child will be able to identify 4 ways in which needs are met differently by a family with an income of $6000/year as compared to a family with an income of $25,000/year.	. *The Federal Government influences our economy through the spending of large sums of money to provide needed services which private enterprise does not supply (defense, postal service, etc.).* . *The government obtains most of the money it spends through taxation. It also borrows money if taxes collected do not cover expenditures.*
ECONOMIC AWARENESS	17. The student will understand the range of social and economic benefits associated with various occupations.	The child will be able to rank jobs according to monetary gains using an occupational guide book as a resource.	. *The Federal Government also has established independent regulatory agencies which affect out economy. Some are:* *-Interstate Commerce Commission, which regulates railroads, trucks, buses, and pipelines.* *-Federal Power Commission, which regulates the power industry.* *-Federal Trade Commission, which polices unfair business practices, such as false advertising.* *-Federal Communications Commission, which regulates radio, television, telephone, and telegraph industries.* *-Civil Aeronautics*
	18. The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.	The child will be able to list 4 examples of how saving a portion of one's income can result in future satisfactions.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	20. The student will identify and state personal goals as part of making career decisions.	The child will be able to identify an aspect of the American economy that he will investigate.	*Board, which regulates the routes and rates of airlines.* *. In addition to these independent agencies, the Federal Government carries on many other activities which deal with our economy.* *-It enforces antitrust laws which are aimed at preventing monopoly practices.* *-It buys and stores surplus farm products through the Commodity Credit Corporation.* *-It insures bank deposits through the Federal Deposit Insurance Corporation.* *-It sets up pure food and drug standards through the Food and Drug Administration.*
DECISION MAKING	21. The student will become proficient in identifying, and using resource information in making career decisions.	The child will be able to list 3 resources in which he can find information about the federal government's regulation of our economy.	*4. State and local governments also influence economic life.* *. There are State banking and insurance laws which control the operations of these privately owned companies.* *. There are State minimum wage laws, unemployment insurance programs, liquor laws, and many*
	22. The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement the course of action.	Given an industrial product, the child will be able to list the steps necessary for its completion.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	23. The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.	The child will be able to choose an aspect of the economic organization of the U.S., compile his information in written form and present it to the class.	*other programs and laws which have a direct bearing on the way private individuals and corporations can conduct their business.* *. Cities, towns, and counties also have laws and regulations which control such things as building standards, health standards, restaurant operation, and the like.* *5. The capitalistic, private enterprise market economy of the United States, operating under government regulation, is the most productive in the world.* *. The productiveness of our economy is measured in terms of the dollar value of the goods and services that it produces and sells.* *. The goods and services produced in the United States are valued in excess of 800 billion dollars per year. This total is far larger than any other country or even a group of countries, such as Western Europe.* *. What this means in human terms is that the people of this country, for the*
BEGINNING COMPETENCY	24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.	The child will choose a major corporation and describe its production techniques and influence on the American economy.	
	25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.	Given a list of industrial occupations the child will be able to draw a chart showing ways in which these occupations are interdependent.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will take part in a team project with three other pupils in order to choose one aspect of the American economy to research.	*most part, enjoy a very high standard of living.* *6. Our economy has shown tremendous growth and strength for several reasons: (1) Under our private enterprise system, a huge mass market for goods and services has been developed. (2) Businessmen, corporations, and investors have spent huge sums to build the plant and equipment; and to develop the processes, which make mass production possible. (3) Our various levels of government have spent huge sums of money to educate our people and improve the skills and knowledge necessary to provide an efficient work force to operate the plant and equipment.* *. Most of the goods and services produced by our economy are sold to the American people themselves.* *. This is because our economy has worked out a distribution of national income which makes it possible for most of the people of the United States to*
EMPLOYABILITY SKILLS	29. The student will relate information about himself in selecting, learning, or performing duties.	The child will be able to evaluate the strengths and weaknesses of his work on his research project about the American economy, using criteria developed by the class.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
			buy the things they want and need.
	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child will be able to describe his work habits, as evident in his completion of a project on some aspect of the economic organization of the U.S.	. *The people of our country have the highest per capita spendable income of any people in the world--higher than the world has ever known.*
			. *This creates a huge pool of demand for food, clothing, shelter, cars, appliances, and all the other products of American industry.*
ATTITUDES AND APPRECIATIONS	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	The child will be able to list 3 positive attributes of a large corporation and 3 positive attributes of a small business.	. *In order to meet this demand, American industry has developed highly efficient methods of production, including specialization and division of labor, technological improvement, and automation.*
			. *Our educational system has helped to meet the every-growing demand for workers to fill the increasingly skilled jobs that technological improvements and automation create.*
			7. *The agricultural sector of our economy is particularly productive, so much so that it creates a problem.*

- Many years ago, most of our people lived on farms which were almost self-contained economic units (subsistence farming).
- As our country became industrialized, the number of people living and working on farms declined, but agricultural production increased.
- This was due to specialization in farms, and technological improvements such as the reaper, the thresher, improved plows, improved seeds and fertilizers, and the development of the tractor (which came late but was of revolutionary importance).
- Today there are fewer than six million people working at farming, and they produce not only enough food to feed 200 million Americans, but very large surpluses as well.

UNIT CONTENT

- This creates the problem of how to deal with the surpluses.
- At present, the Federal Government is attempting to solve this problem in two major ways: (1) by paying farmers to keep land out of production, and (2) by buying and storing some of the surpluses produced.
- The Government buys surpluses in order to "support" the prices of farm products so that those who work at farming will have adequate incomes.
- American taxpayers are paying more than five billion dollars a year to defray the cost of the two programs mentioned above.

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	2. The student will learn about himself in relation to his culture through understanding and experiencing roles.	The child will be able to list four ways in which his role in his family is different from that of a Middle Eastern child	ECONOMIC ORGANIZATION
SELF AWARENESS	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will state four "middlemen occupations" of the United States that do not exist in the Middle East.	*1. A majority of the population of the Middle East is involved in agriculture.* *. A large percentage of the land suitable for farming is owned by a few rich families.* *. The land is farmed by tenant farmers, who must turn over much of the food they grow to the landlord.* *. Agricultural methods are inefficient and productivity is quite low.* *. The population is greater than the productivity of the land.* *. Generally, the landowners do not try to improve production.* *. The tenant does not have the means to improve production.*
	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will name 6 things that he has learned about the Middle East from watching T.V.	
EDUCATIONAL AWARENESS	9. The student will recognize that different career directions require varying types of educational preparation.	The child will write a story explaining the educational preparation typical of a Middle Eastern child.	
	10. The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.	The child will state several facts which (if known) would influence Middle Eastern landowners to improve production.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	11. The student will understand the variety of occupations found in the world of work.	The child will list 6 occupations relevant to the oil industry of the Middle East.	
CAREER AWARENESS	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will state 4 occupations found in the Middle East, but not in his community.	. *Water reservoir projects are being constructed to enlarge areas of productivity.*
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The child will draw a chart of the skills necessary for each of three Middle Eastern occupations.	2. *There are other patterns of land ownership and control in the Middle East.* . *The nomadic tribes own large areas of land centered about oases, but this land is suitable only for grazing animals.* . *Some Israeli farmers own land collectively and work closely with each other on large farms called kibbutz.* . *Egypt has also set up a system of redistributing the land and is using a cooperative system to develop the land.*
ECONOMIC AWARENESS	16. The student will understand the relationship between personal economics, life-style and occupational roles.	The child will write a skit with a group of 4 other children depicting the life-style and occupational roles in a Middle Eastern community.	
	17. The student will understand the range of social and economic benefits associated with various occupations.	The child will list 10 occupations related to the oil industry and rank them in terms of their economic status.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	20. The student will identify and state personal goals as part of making career decisions.	The child will choose a topic on the Middle East to research and list the information he hopes to discover.	3. *The discovery of oil has had great economic and some sociological effects.*
DECISION MAKING	21. The student will become proficient in identifying, and using resource information in making career decisions.	The child will list 6 resources he has used, and state their value, to his study of the Middle East.	*. Revenue from petroleum has given great amounts of wealth to the Middle East.*
	22. The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement the course of action.	The child will state 4 ways in which he could report his topic to the class, and state the one he will choose with 3 reasons for his final choice.	*. Most of the money did not go originally into raising the industrial level of the countries.* *. Attempts are now being made to use oil revenue to improve the overall economic picture of the oil producing countries.* *. It is estimated the majority of the world's oil reserves lie in this area.* *. Areas of petroleum production and transportation provide job opportunities and modern facilities for the people who live there.*
	23. The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.	The child will be able to match a list of facts with specific sources for finding the information.	
BEGINNING COMPETENCY	25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.	The child will draw a chart of the occupation roles typical of the patterns of land ownership in Israel.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will evaluate the interaction of a group by stating 2 contributions of his and of 4 other people after participating in a group project.	*4. The Middle East is generally industrially backward.* *. Raw materials are scarce in this area.* *. There is little hydro-electric power utilized.* *. Israel has developed industrially, but possesses few resources.* *. There are not enough skilled workers or technicians.* *. The population growth threatens to outstrip the economic growth.* *. Although much income is received from oil revenue, little has gone into developing industry. This situation is gradually changing.* *. Economic aid is received from the United States, the United Nations, the Soviet Union, and Europe.*
ATTITUDES AND APPRECIATIONS	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child will list 4 responsibilities he has accepted necessary to the completion of a group project.	
	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	The child will state 5 reasons why the Middle East has a different economic system than that of the United States.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
SELF AWARENESS	3. The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.	The child will be able to identify one food from each basic food group that he enjoys eating.	
	6. The student will learn to establish, although tentative, personally relevant goals.	The child will be able to name three foods that everyone should be sure to include in his diet.	*To become aware of relationship of food to growth.*
EDUCATIONAL AWARENESS	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will be able to name one fact he learned on a field trip to a local dairy.	*1. Certain kinds of food are necessary for growth.*
			2. Some foods are better for us than others.
CAREER AWARENESS	11. The student will understand the variety of occupations found in the world of work.	The child will be able to list 5 occupations which are related to food production.	*3. Food alone does not determine how we grow.*
	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will be able to describe how a food producing worker helps produce for us.	*4. We need more of some kinds of food than others.*
ECONOMIC AWARENESS		See Career Awareness--Theme 12	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES
DECISION MAKING	20. The student will identify and state personal goals as part of making career decisions.	The child will list 4 of his favorite foods in each of the basic four food groups.
BEGINNING COMPETENCY	25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.	The child will make a chart which will list the responsibilities of each worker that helps him to receive one food he needs to grow (milk, meat, bread, vegetables).
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will make a booklet of pictures illustrating one of the basic four food groups.
ATTITUDES AND APPRECIATIONS	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child will share, with five other children, the responsibility of making up a grocery list of a week's needed foods.
	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	The child will name 4 different foods that will all contribute equally to a healthy diet (from one group--bread, rice, potatoes, macaroni).

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
SELF AWARENESS	3. The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.	The child will draw pictures of 3 games he plays on rainy days and 3 games he plays on sunny days.	
EDUCATIONAL AWARENESS	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will name 2 things that he learned on a trip to a local weather station.	*To become aware of how we depend on air and how we measure its characteristics.*
CAREER AWARENESS	11. The student will understand the variety of occupations found in the world of work.	The child will name 5 occupations which are dependent on the weather.	*1. Fire needs air to burn.*
	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will draw a picture story showing how a weather report has helped him plan his day.	*2. Plants and animals generally need air to live.*
			3. A thermometer measures temperature.
ECONOMIC AWARENESS	17. The student will understand the range of social and economic benefits associated with various occupations.	The child will make a list of 4 jobs related to the weather.	*4. Temperature is a measure of "hotness."*
DECISION MAKING	20. The student will identify and state personal goals as part of making career decisions.	The child will be able to choose a topic from his study of weather and report about it.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
BEGINNING COMPETENCY	24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.	After a field trip to the local fire department the child will draw pictures of four tools used by the fireman.	
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will take the responsibility of reporting the temperature to the class, each morning for a week.	5. A cloud is made of water droplets or tiny ice crystals. 6. Weather affects our work and play.
	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child, with 3 other children, will help prepare a story report on his trip to the fire department.	7. Water evaporates from puddles, lakes, and oceans to go into the air again.
ATTITUDES AND APPRECIATIONS	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	The child will be able to explain the difference between plants' and animals' uses of air.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	2. The student will learn about himself in relation to his culture through understanding and experiencing roles.	The child will be able to list 3 ways in which he (the animal man) has adapted to his environment.	
SELF AWARENESS	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will make a booklet showing the interaction of plants and animals in his environment.	*To learn how living things survive in their environment.*
	5. The student will recognize that self-knowledge is related to a set or system of values unique to him. that influence his development.	The child will list four ways in which he practices good conservation measures.	*1. Plants and animals depend on other living things for their well-being.*
EDUCATIONAL AWARENESS	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will name 6 ways that plant life contributes to his environment, after a field trip to a local forest area.	
	10. The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.	The child will name 10 ways knowledge learned in school is used by a conservation worker (map reading, etc.).	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
CAREER AWARENESS	11. The student will understand the variety of occupations found in the world of work.	The child will list 6 occupations that are related to conservation of our natural resources.	
	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will make a chart that matches workers and their conservation practices that are part of their jobs.	
			3. *Many plants and animals are adapted to living in certain kinds of places.*
ECONOMIC AWARENESS	17. The student will understand the range of social and economic benefits associated with various occupations.	The child will be able to name 8 different occupations associated with the construction of a garment made from an animal (or a natural fiber).	
			3. *Many animals have special adaptations which protect them from their enemies.*
DECISION MAKING	22. The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement the course of action.	The child will be able to list several possible places for a field trip appropriate to the study of living things.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.	The child will be able to match pictures of living things with tools associated with their care and study (conservation, etc.).	
BEGINNING COMPETENCY	25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.	The child will be able to make a chart showing the various occupations involving living things in the construction of shelters.	4. *Man depends on other living things for his food, clothing, and shelter.*
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will independently prepare a report on one plant and one animal in his environment.	5. *Man should exercise good conservation practices so as not to disrupt the interdependence of living things.*
ATTITUDES AND APPRECIATIONS	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child will be able to complete an assignment he has chosen related to the special adaptations of animals.	
	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	The child will list 3 contributions made by each of 10 different animals living in his environment.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
SELF AWARENESS	2. The student will learn about himself in relation to his culture through understanding and experiencing roles.	The child will list 20 machines that make his life easier.	*To become aware of heat and work and to see how they influence our lives.*
	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will visit the boiler room and be able to list 3 of the systems that help provide for the functioning of the school.	*1. Heat is a form of energy.*
	8. The student will recognize that educational experiences are a part of his career development.	The child will list 10 ways in which operating the heating and electrical systems of a school rely on math ideas.	*2. Heat energy is used to run many machines.*
EDUCATIONAL AWARENESS	9. The student will recognize that different career directions require varying types of educational preparation.	The child will name the types of training needed to run the heating and electrical systems of the school.	*3. Heat is produced by fire, friction, and electricity.*
	10. The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.	The child will list ideas covered in 5 curriculum areas that contribute to the job of the maintenance of a building.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	11. The student will understand the variety of occupations found in the world of work.	The child will name 4 jobs which use machines necessary for the functioning of the school.	
CAREER AWARENESS	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will list 5 jobs necessary in a machine age society.	
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The child will name 5 qualifications necessary in the machine age that were not required of previous workers.	4. *Metals are good conductors of heat; wood is a poor heat conductor.* 5. *Heat from friction is wasted energy.* 6. *Friction makes it difficult to slide one object along another.*
ECONOMIC AWARENESS	16. The student will understand the relationship between personal economics, life-style and occupational roles.	The child will name 4 ways his life-style is dependent on machinery.	
DECISION MAKING	20. The student will identify and state personal goals as part of making career decisions.	The child will choose an experiment about a friction concept and demonstrate it to the class.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
BEGINNING COMPETENCY	24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.	The child will write a report describing 5 tools that help the custodian in the maintenance of the building's heat and electricity.	7. *Friction is reduced by the use of bearings and lubrication.*
EMPLOYABILITY SKILLS	29. The student will relate information about himself in selecting, learning, or performing duties.	The child will be able to state 4 ways in which he has contributed to a group project about heat.	8. *Friction is useful in stopping moving things.*
			9. *Machines are used to make work easier.*
ATTITUDES AND APPRECIATIONS	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child and 3 others will write a report about the functioning of the heating system of the school.	
	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	The child will list the different conductors of heat, ranking them in strength from strongest to weakest power of conduction.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will identify several occupational fields related to the study of the earth's composition and state how they influence him and/or his community (national parks, farming, oceanography, etc.).	*To learn about the earth's surface and how it developed to its present form; and to learn about the earth's interior.*
SELF AWARENESS	5. The student will recognize that self-knowledge is related to a set or system of values unique to him. that influence his development.	The child will be able to list changes in our life styles which are a result of using up our natural resources (soil depletion, etc.).	*1. The interior of the earth is hot.*
			2. Geysers and hot springs bring dissolved minerals to the earth's surface.
	7. The student will recognize that learning is a continuous process occurring in and outside of school.	While on a field trip to a forest area, the child will make a list of naturally occurring changes in the earth's surface (erosion, weathering, chemical changes, etc.).	*3. Volcanoes, earthquakes, and geysers are earth-building forces.*
EDUCATIONAL AWARENESS	9. The student will recognize that different career directions require varying types of educational preparation.	The child will list the types of educational preparation and training necessary for each of several jobs related to the study of the earth's composition (geologist, physicist).	

THE EARTH AND ITS COMPOSITION — SCIENCE — GRADE 5

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	11. The student will understand the variety of occupations found in the world of work.	The student will be able to identify the many occupations associated with the study of the earth's composition by matching occupations (geologist, physicist, landscaper, etc.) with each topic (soil, rocks, wind, water and earth).	
CAREER AWARENESS	12. The student will understand the way in which occupations relate to needs and functions of society.	The student will list the specific duties of a geologist, a physicist and a landscaper and then identify the specific functions these jobs accomplish for society's well being.	4. *Weathering and erosion wear down the surface of the earth.*
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The student will become familiar with the training needed for various scientific occupations by listing worker qualifications for each job.	5. *Water, wind, chemical reactions, temperature changes and plant growth slowly disintegrate rock.* 6. *Disintegrated rock is moved to lower areas by water, ice and wind.*
ECONOMIC AWARENESS	17. The student will understand the range of social and economic benefits associated with various occupations.	The student will make a list of the educational preparation needed for specific jobs and then match up resulting salary differences.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
DECISION MAKING	20. The student will identify and state personal goals as part of making career decisions.	The child will identify an aspect of the study of the earth's composition in which he wishes to become more informed about and state how he intends to find out about that area.	
			7. Topsoil is often lost faster than it is replaced.
	24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.	The student will be able to follow directions in the use of the microscope as a tool in studying soil and rocks.	*8. Topsoil contains sand, silt, clay, and humus.*
			9. Soil conservation practices include crop rotation, terracing, and contour farming.
BEGINNING COMPETENCY	25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.	The student will make a chart showing the interdependencies of jobs related to geology, landscaping, ecology, forestry, etc.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The student will write a report on an aspect of soil conservation which he will have completed independently.	10. *The ocean has been made salty by the dissolved minerals that streams have carried into it.*
	29. The student will relate information about himself in selecting, learning, or performing duties.	The student will present an experiment about chemical changes in the earth's surface, to the class, at which time he will also describe the steps he went through in setting up and analyzing the experiment.	11. *Limestone caves are formed by action of water as it seeps down through rocks.*
	30. The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.	The student will keep a checklist of good work habits during this science unit and then write a self-evaluation of his habits at the end of the unit.	
ATTITUDES AND APPRECIATIONS	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The student, when working on a team project, will identify his responsibilities and follow through on them.	12. *The depletion of resources, including soil, changes the way we live.*
	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	Through discussion, the student will identify many scientific occupations and state the value and the importance of each.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	2. The student will learn about himself in relation to his culture through understanding and experiencing roles.	The child will participate in a debate on whether the United States should continue its space program, and include 5 specific reasons for defending his position.	
SELF AWARENESS	4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.	The child will be able to state the percent of the national budget spent on the space program, from 1960-1972, and describe 3 ways this has influenced changes in his community.	*To learn about the nature of the universe and how we obtain knowledge about it.*
			1. Planets differ in physical characteristics such as size, motion, gravity, atmosphere, and temperature.
	7. The student will recognize that learning is a continuous process occurring in and outside of school.	The child will read reports of the Apollo flights 11 and 12, and orally report to the class 3 facts of the flight's findings.	
	8. The student will recognize that educational experiences are a part of his career development.	The child will list 10 math and science skills that he can identify as necessary in a scientific occupation.	*2. Forces man must consider when sending rockets into space are gravity, inertia, and friction.*
EDUCATIONAL AWARENESS	9. The student will recognize that different career directions require varying types of educational preparation.	The child will identify the schooling needed for 8 scientific occupations (astronaut, astronomer, etc.) related to the study of the solar system.	*3. Energy released from the sun is called solar radiation.*

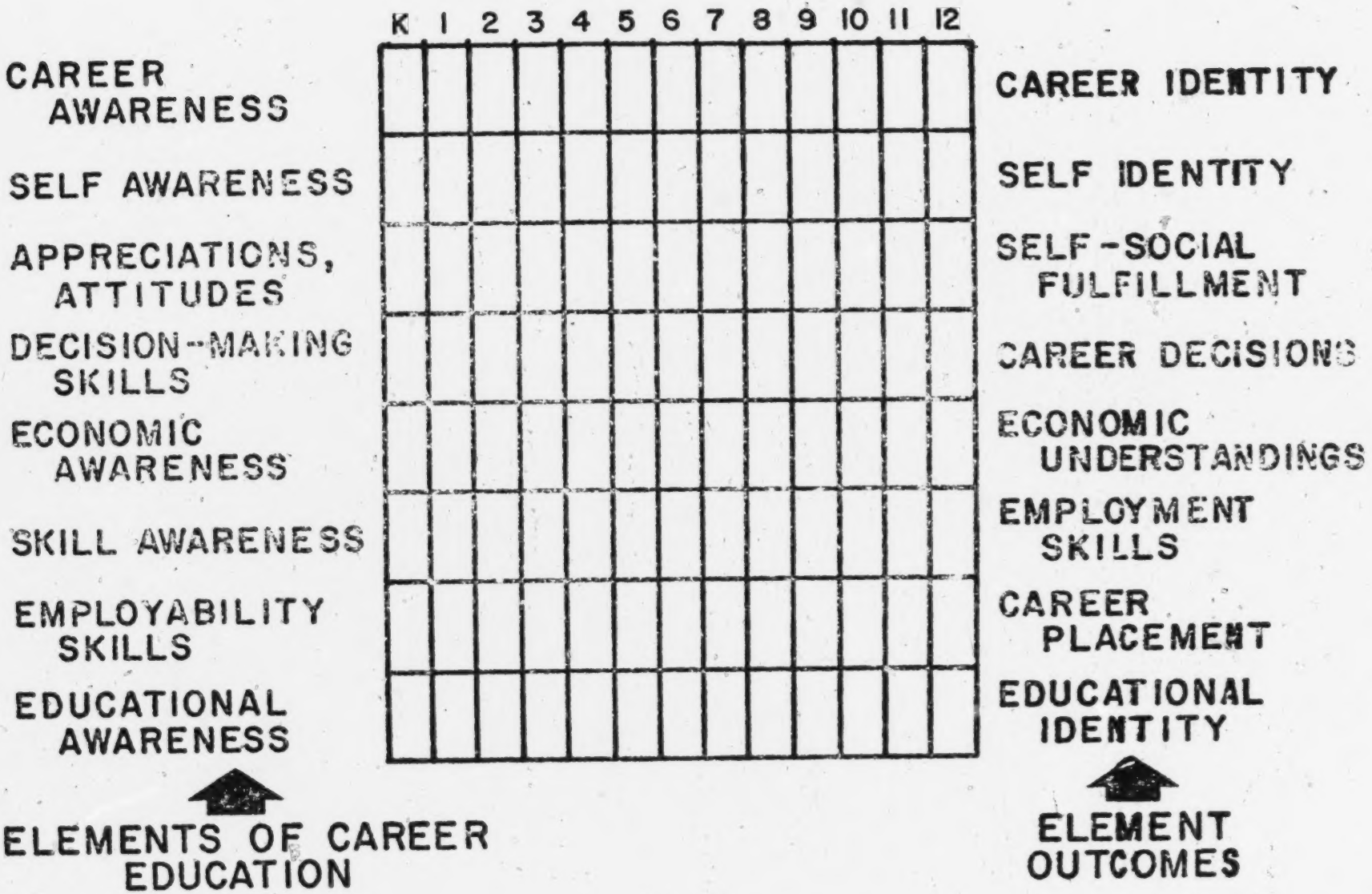
SOLAR SYSTEM AND BEYOND SCIENCE GRADE 6

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
CAREER AWARENESS	11. The student will understand the variety of occupations found in the world of work.	The child will name 8 new occupations that the studying of the solar system has created (astronauts, technicians, computer operators, builders of rockets, scientists, etc.)	
	12. The student will understand the way in which occupations relate to needs and functions of society.	The child will identify the positive and negative value of a space occupation (astronaut, astronomer) to our American society.	
	13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.	The child will list the specific qualifications of 5 related space occupations.	4. When the moon blocks the sunlight from the earth, a solar eclipse occurs.
	15. The student will understand the relationship between career and life-style.	The child will name 4 characteristics about a way of life typical to the career of an astronaut.	5. When the earth blocks the sunlight from the moon, a lunar eclipse occurs.
ECONOMIC AWARENESS	16. The student will understand the relationship between personal economics, life-style and occupational roles.	The child will be able to list 3 aspects of an astronaut's life style that is related to and unique to his occupational role.	6. The phases of the moon result from our viewing various amounts of the lighted side of the moon.
	17. The student will understand the range of social and economic benefits associated with various occupations.	The child will list the jobs necessary to our space program (technicians, builders, scientists, physicists, engineers) stating each one's purpose to the program and economic benefits to the individual.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES	UNIT CONTENT
	20. The student will identify and state personal goals as part of making career decisions.	The child will make a list of the personal characteristics necessary for different scientific occupations, after reading biographies of famous scientists.	
DECISION MAKING	22. The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement the course of action.	The child will choose a communication media (story, pictures, displays, exhibits) which will explain to the class his learnings about a topic in the solar system.	7. *Our units of time are based on astronomical motions.* 8. *Astronomers use telescopes, spectroscopes, and cameras in their observations.*
BEGINNING COMPETENCY	24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.	The child will be able to use and focus a telescope to locate one of the planets (Jupiter, etc.).	9. *The great distances through space are often measured in light years.* 10. *Our knowledge of astronomy has developed as the result of the work of many scientists over many years.*
EMPLOYABILITY SKILLS	28. The student will recognize the implications of working, with and without supervision, independently and with others.	The child will be able to participate in a group project about the solar system.	

CEM ELEMENTS	CAREER EDUCATION THEMES	BEHAVIORAL OBJECTIVES
ATTITUDES AND APPRECIATIONS	31. The student will recognize the responsibilities to himself and others when accepting a task or job.	The child will choose a topic in the study of the solar system, research it, and report to the class on his findings.
	32. The student will recognize individual differences and become tolerant in his interpersonal relationships.	The child will list 3 personal characteristics necessary to each of 5 jobs associated with the study of the solar system.

C C E Matrix


K 1 2 3 4 5 6 7 8 9 10 11 12
CAREER AWARENESS
SELF AWARENESS
APPRECIATIONS, ATTITUDES
DECISION-MAKING SKILLS
ECONOMIC AWARENESS
SKILL AWARENESS
EMPLOYABILITY SKILLS
EDUCATIONAL AWARENESS
ELEMENTS OF CAREER EDUCATION
CAREER IDENTITY
SELF IDENTITY
SELF-SOCIAL FULFILLMENT
CAREER DECISIONS
ECONOMIC UNDERSTANDINGS
EMPLOYMENT SKILLS
CAREER PLACEMENT
EDUCATIONAL IDENTITY
ELEMENT OUTCOMES

REVISED LIST OF MATRIX THEMES Appendix B

SELF AWARENESS

1. The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.
2. The student will learn about himself in relation to his culture through understanding and experiencing roles.
3. The student will understand, accept, and respect his own uniqueness as a result of learning, growth and maturation.
4. The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.
5. The student will recognize that self-knowledge is related to a set or system of values unique to him.
6. The student will learn to establish, although tentative, personally relevant goals.

EDUCATIONAL AWARENESS

7. The student will recognize that learning is a continuous process occurring in and outside of school.
8. The student will recognize that educational experiences are a part of his career development.
9. The student will recognize that different career directions require varying types of educational preparation.
10. The student will recognize the significance of language, computational and reasoning development, and the mastery of content knowledge as a means of achieving career goals.

CAREER AWARENESS

11. The student will understand the variety of occupations found in the world of work.
12. The student will understand the way in which occupations relate to needs and functions of society.
13. The student will determine the worker qualifications related to performing the basic tasks of various occupations.

14. The student will recognize that his career includes progression through developmental stages of educational and occupational experiences.

15. The student will understand the relationship between career and life-style.

ECONOMIC AWARENESS

16. The student will understand the relationship between personal economics, life-style and occupational roles.

17. The student will understand the range of social and economic benefits associated with various occupations.

18. The student will understand how wealth is accumulated through savings and investments and how it may influence his career and life-style.

19. The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community, state, and nation.

DECISION MAKING

20. The student will identify and state personal goals as part of making career decisions.

21. The student will become proficient in identifying, and using resource information in making career decisions.

22. The student will understand that decision making includes responsible action in identifying alternatives, selecting the alternative most consistent with his goals, and taking steps to implement the course of action.

BEGINNING COMPETENCY

23. The student will develop the skills required to identify the objectives of a task, specify resources required, outline procedures, perform operations, and evaluate the product.

24. The student will become familiar with the use of basic tools, equipment, and materials associated with business, commercial and industrial activities.

25. The student will develop an understanding of the interpersonal relationships resulting from the interaction of people in various occupational roles.

26. The student will develop educational and occupational competency before moving to the next stage of preparation or entering an occupation in the career area of his choice.

27. The student will develop the skills necessary for employment in the career of his choice.

EMPLOYABILITY SKILLS

28. The student will recognize the implications of working, with and without supervision, independently and with others.

29. The student will relate information about himself in selecting, learning, or performing duties.

30. The student will develop the work habits and attitudes necessary to enter an occupation in the career area of his choice.

31. The student will recognize the responsibilities to himself and others when accepting a task or job.

32. The student will recognize individual differences and become tolerant in his interpersonal relationships.